

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously Presented) An isolated gene encoding a polypeptide which is a human 116-kDa osteoclast proton pump subunit, wherein the gene comprises a nucleotide sequence consisting of SEQ ID NO: 1.
2. (Cancelled)
3. (Previously Presented) An isolated polynucleotide encoding a polypeptide which is an osteoclast 116-kDa proton pump subunit, wherein said polynucleotide comprises the nucleotide sequence of SEQ ID NO: 1 or its complementary nucleotide sequence.
4. (Currently Amended) The An isolated polynucleotide encoding a polypeptide which is an osteoclast 116-kDa proton pump subunit of claim 3, wherein said polynucleotide comprises a nucleic acid sequence that encodes a polypeptide comprises consisting of the amino acid sequence of SEQ ID NO:2.
5. (Currently Amended) An isolated polynucleotide encoding a polypeptide which is an osteoclast proton pump subunit, wherein said polynucleotide ~~comprises a~~ consists of the nucleotide sequence of SEQ ID NO:1 selected from the group consisting of:
 - a) ~~SEQ ID NO: 1 or its complementary nucleotide sequence;~~
 - b) ~~nucleotide sequences which hybridize under conditions of medium stringency to the nucleotide sequences of (a); and~~
 - e) ~~nucleotide sequences which hybridize under conditions of high stringency to the nucleotide sequences of (a).~~
6. - 29. (Cancelled)
30. (Previously Presented) The polynucleotide of claim 3, wherein said polynucleotide is operably linked to a regulatory sequence.

31. (Cancelled)

32. (Currently Amended) ~~A cell~~ An isolated cell comprising a vector comprising the polynucleotide of claim 3, wherein said cell is transformed with said vector.

33. (Cancelled)